

- 1N5711-1 AVAILABLE IN JAN, JANTX, JANTXV AND JANS PER MIL-PRF-19500/444
- 1N5712-1 AVAILABLE IN JAN, JANTX, JANTXV AND JANS PER MIL-PRF-19500/445
- SCHOTTKY BARRIER DIODES
- HERMETICALLY SEALED
- METALLURGICALLY BONDED

1N5711  
1N5711-1  
1N5712-1  
1N6857-1  
1N6858-1  
DSB2810  
DSB5712

## MAXIMUM RATINGS

Operating Temperature: -65°C to +150°C  
 Storage Temperature: -65°C to +150°C  
 Operating Current: 5711 types :33mA dc@  $T_L = +130^\circ\text{C}$ ,  $L = 3/8"$   
 2810,5712 & 6858 types :75mA dc@  $T_L = +110^\circ\text{C}$ ,  $L = 3/8"$   
 6857 TYPE :75mA dc@  $T_L = +70^\circ\text{C}$ ,  $L = 3/8"$   
 Derating: all types: Derate to 0 (zero)mA@+150°C

## ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified.

| CDI TYPE NUMBER | MINIMUM BREAKDOWN VOLTAGE | MAXIMUM FORWARD VOLTAGE | MAXIMUM FORWARD VOLTAGE | MAXIMUM REVERSE LEAKAGE CURRENT |       | MAXIMUM CAPACITANCE @ $V_R = 0$ VOLTS<br>$f = 1.0$ MHz | ESDS CLASS |
|-----------------|---------------------------|-------------------------|-------------------------|---------------------------------|-------|--|------------|
|                 | $V_{BR} @ 10 \mu A$       | $V_F @ 1 mA$            | $V_F @ I_F$             | $I_R @ V_R$                     |       | $C_T$  |            |
|                 | VOLTS                     | VOLTS                   | MILLIAMPS               | nA                              | VOLTS | PICO FARADS  |            |
| DSB2810         | 20                        | 0.41                    | 1.0@35                  | 100                             | 15    | 2.0  | 1          |
| 1N5711,-1       | 70                        | 0.41                    | 1.0@15                  | 200                             | 50    | 2.0  | 1          |
| DSB5712         | 20                        | 0.41                    | 1.0@35                  | 150                             | 16    | 2.0  | 1          |
| 1N5712-1        | 20                        | 0.41                    | 1.0@35                  | 150                             | 16    | 2.0  | 1          |
| 1N6857-1        | 20                        | 0.35                    | 0.75@35                 | 150                             | 16    | 4.5  | 2          |
| 1N6858-1        | 70                        | 0.36                    | 0.65@15                 | 200                             | 50    | 4.5  | 2          |

**NOTE:** Effective Minority Carrier Lifetime ( $\tau$ ) is 100 Pico Seconds

**NOTICE:** Qualification testing to M, JX, and JS levels for 6857 and 6858 types is underway. Contact the factory for qualification completion dates. These two part numbers are being introduced by CDI as "drop-in" replacements for the 5711 and 5712. They provide a more robust mechanical design and a higher ESDS class with the only trade-off being an increase in capacitance.

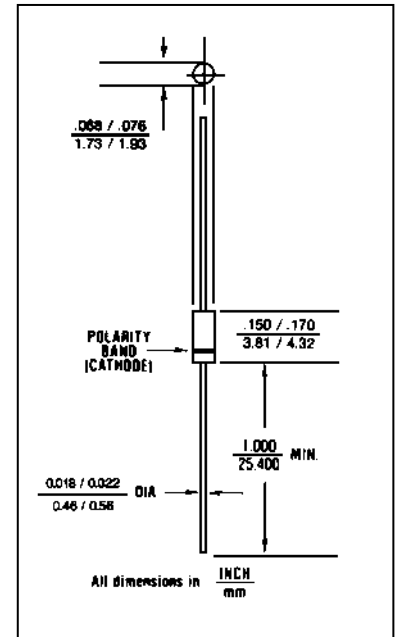


FIGURE 1

## DESIGN DATA

**CASE:** Hermetically sealed glass case per MIL-PRF-19500/444 and /445 DO-35 Outline

**LEAD MATERIAL:** Copper clad steel.

**LEAD FINISH:** Tin / Lead

**THERMAL RESISTANCE:** ( $R_{\theta JEC}$ ): 250 °C/W maximum at  $L = .375$  inch

**THERMAL IMPEDANCE:** ( $Z_{\theta JX}$ ): 40 °C/W maximum

**POLARITY:** Cathode end is banded.

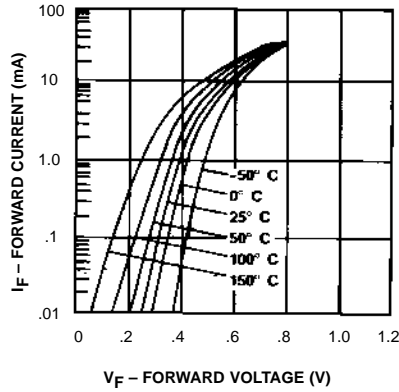
**MOUNTING POSITION:** Any.



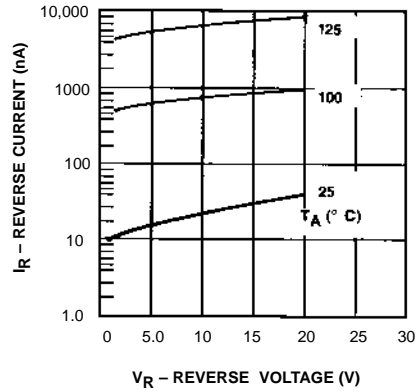
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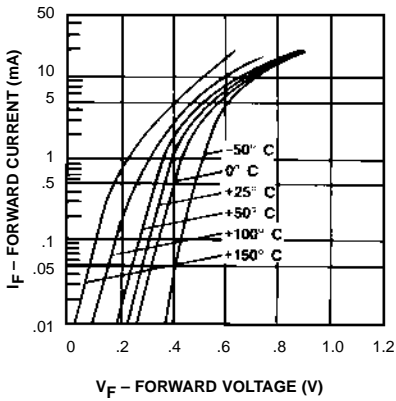
# 1N5711, 1N5712, 1N6857, 1N6858 DSB5712 and DSB2810 INCLUDING -1 VERSIONS



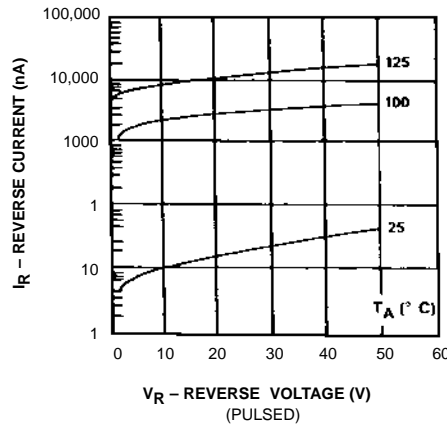
**Figure 1.**  
I-V Curve Showing Typical Forward Voltage Variation with Temperature for the DSB5712 and DSB2810 Schottky Diodes.



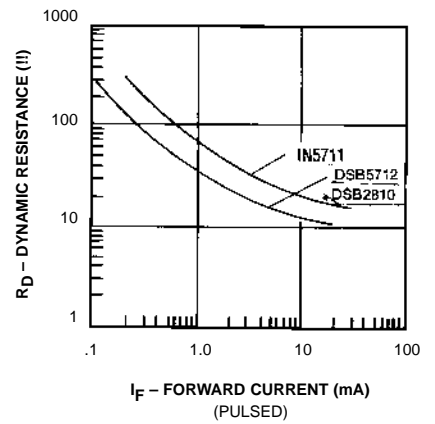
**Figure 2.**  
DSB5712 and DSB2810 Typical Variation of Reverse Current ( $I_R$ ) vs. Reverse Voltage ( $V_R$ ) at Various Temperatures.



**Figure 3.**  
I-V Curve Showing Typical Forward Voltage Variation with Temperature for Schottky Diode 1N5711.



**Figure 4.**  
1N5711 Typical Variation of Reverse Current ( $I_R$ ) vs. Reverse Voltage ( $V_R$ ) at Various Temperatures.



**Figure 5.**  
Typical Dynamic Resistance ( $R_D$ ) vs. Forward Current ( $I_F$ ).